

# **ABSTRACT**

A system for arbitrating access to a shared resource includes a plurality of microprocessors, a shared resource; and a controller coupled to the plurality of  
5 microprocessors and the shared resource by a first bus and a second bus, respectively, the controller including a register having a lock portion associated with each of the plurality of processors and at least one status portion, each of the lock portions indicating whether the associated  
10 one of the plurality of microprocessors has obtained access to communicate with the shared resource and each of the at least one status portion includes a bit indicating whether any of the plurality of microprocessors has obtained access to communicate with the shared resource.